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## ABSTRACT

A phosphor having small reduction in brightness when exposed to the plasma, a phosphor paste comprising the phosphor are provided. The phosphor comprises the following fluorescent substances I and II, wherein the fluorescent substance I contains silicate and Mn as an activator and the fluorescent substance II contains a compound represented by the formula (1) or a compound represented by the formula (2) and Tb as the activator.

$$(M_{1-a}^1M_a^2)(Mg_{1-b-c}Zn_b)Al_{11-d}Mn_{c+d}O_{19-(a+d)/2}$$
 (1)

[In the formula (1), M¹ is at least one selected from the group consisting of La, Y and Gd, M² is at least one selected from the group consisting of Ca, Sr and Ba, a is not less than 0 and not more than 0.6, b is not less than 0 and not more than 1, c is not less than 0 and not more than 0.5, d is not less than 0 and not more than 0.5, b+c is not more than 1, and c+d is more than 0 and not more than 0.5.]

$$M_{2}^{3}O_{3} \cdot mAl_{2}O_{3} \cdot nB_{2}O_{3}$$
 (2)

[In the formula (2), M<sup>3</sup> is at least one selected from the group consisting of La, Y and Gd, m is not less than 2.5 and not more than 4.5 and n is not less than 3.5 and not more than 5.5.]